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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,696	09/21/1999	KEHSING J. CHOU	ST9-99-093	2558

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SUGHRUE MION ZINN MACKEAK & SEAS  
2100 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20037-3213

EXAMINER

PHAM, HUNG Q

ART UNIT	PAPER NUMBER
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2172

25

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/399,696

Applicant(s)

CHOU ET AL.

Examiner

HUNG Q PHAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Response to Arguments***

1. Applicants' arguments, see pages 7-8, filed 01/07/2004, with respect to Claim Rejections - 35 USC § 112, First Paragraph, the rejection have been fully considered and are persuasive. The rejection of claims 1, 6, and 13 has been withdrawn.

2. Applicants added new claims 22-24, and claims 1-24 are pending. Applicant's arguments with respect to Claim Rejections - 35 USC § 102 (e) have been fully considered but they are not persuasive.

In response to applicants' argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., ... *Chang*, does not in any way relate to load balancing among servers in a server hierarchy. Indeed, *Chang* does not disclose or suggest any mechanism for load-balancing among servers in a server hierarchy) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

As defined in Microsoft Press Computer Dictionary:

server 2. On the Internet or other network, a computer or program that responds to commands from a client.

As shown in Chang FIG. 5, query objects 13 specific to the type of query language are created using the createQuery( ) method 40 in the datastore 9. This method of creation is to ensure that the created query object 14-19 will have all the

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necessary information and can always get help from the datastore 9 in processing the query. A query object 14-19 can prepare and execute the query. As seen, query objects 14-19 that respond to the query as a plurality of *servers* that *connect to* datastore 9 as *one or more heterogeneous datastores to process* a query as *a request*. The execute method 41 may take a queryable collection 5 as an input parameter to limit the scope of the query 14-19 (Col. 8, line 66-Col. 9, line 9). Queryable collection object 5 also includes the "evaluate" method 39 for evaluating the next query, and so on. The subsequent query evaluated by a queryable collection must match or be consistent with the member of the queryable collection. Otherwise, an exception is thrown (Col. 8, lines 47-52). As illustrated, each query object will have a scope or *a load* based on the input parameter set up by queryable collection 5 to execute a specific query, and evaluate method 39 to evaluate the subsequent query for matching, or being consistent as condition of *satisfaction*, and a query object within query objects 14-19 is *selected* to process the request as in FIG. 5. In other words, the technique as discussed indicates the step of *selecting a server to process the request based on a load of the server and based on whether the server can satisfy the request for data, said server connected to one or more heterogeneous datastores*.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al. [USP 6,272,488 B1]. The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.**

Regarding to claims 1, 7 and 13, Chang teaches a computer method and system capable of searching multiple *heterogeneous datastores* with heterogeneous data types by employing an object oriented data model to define a federated query object, a federated

collection object and a federated datastore object (Abstract). As shown in FIG. 4, when a user wants to submit a query, he/she can start by creating a specific datastore object 9 to give him/her access to the query processing functions provided by that datastore 9, which could be DatastoreDL, for supplying a query string and other parameters, or a query object 13 (Col. 8, lines 40-47). As seen, a datastore such as DatastoreDL in FIG. 8 as *a federated data source* or *federated datastore* receives query criteria for searching a particular data in the datastore as *a request for data*. In other words, the Chang technique indicates the step of *receiving a request for data at a federated data source*. As shown in FIG. 5, query objects 13 specific to the type of query language are created using the createQuery( ) method 40 in the datastore 9. This method of creation is to ensure that the created query object 14-19 will have all the necessary information and can always get help from the datastore 9 in processing the query. A query object 14-19 can prepare and execute the query. The execute method 41 may take a queryable collection 5 as an input parameter to limit the scope of the query 14-19 (Col. 8, line 66-Col. 9, line 9). Queryable collection object 5 also includes the "evaluate" method 39 for evaluating the next query, and so on. The subsequent query evaluated by a queryable collection must match or be consistent with the member of the queryable collection. Otherwise, an exception is thrown (Col. 8, lines 47-52). As illustrated, based on the parameters of query string, query type, queryable collection 5 to limit the scope as *a load* of the query object, and evaluate method 39 to evaluate the subsequent query for matching, or being consistent as condition of *satisfaction*, a query object as *a server* within query objects 14-19 is created or *selected* to process the request. The method of

creation is to ensure that the created query object 14-19 will have all the necessary information and can always get help from the datastore 9 in processing the query or *connecting to one or more heterogeneous datastores*. In other words, the technique as discussed indicates the step of *selecting a server to process the request based on a load of the server and based on whether the server can satisfy the request for data, said server connected to one or more heterogeneous datastores*.

Regarding to claims 2, 8 and 14, Chang teaches all the claimed subject matters as discussed in claims 1, 7 and 13, Chang further discloses the step of *forwarding the request to the selected server* (Col. 8, line 66-Col. 9, line 9).

Regarding to claims 3, 9 and 15, Chang teaches all the claimed subject matters as discussed in claims 2, 8 and 14, Chang further discloses the step of *forwarding additional requests for similar data to the selected server* (Col. 8, lines 53-57).

Regarding to claims 4, 10 and 16, Chang teaches all the claimed subject matters as discussed in claims 1, 7 and 13, Chang further discloses *the server is within a server hierarchy* (FIG. 2).

Regarding to claims 5, 11 and 17, Chang teaches all the claimed subject matters as discussed in claims 1, 7 and 13, Chang further discloses *upon receiving a request to*

*add another server, connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server* (Col. 31, lines 9-44).

Regarding to claims 6, 12 and 18, Chang teaches all the claimed subject matters as discussed in claims 1, 7 and 13 Chang further discloses *upon receiving a request to deleted an existing server in the hierarchy, deleting that server* (Col. 7, lines 61-67).

Regarding to claim 19, 20 and 21, Chang teaches all the claimed subject matters as discussed in claim 1, 7 and 13, Chang further discloses *load of server is based on at least the ratio of a current load of the server and a maximum load of the server* (Col. 31, lines 9-44).

Regarding to claims 22, 23 and 24, Chang teaches all the claimed subject matters as discussed in claims 1, 7 and 13, Chang further discloses Java and object oriented structure is used to implement the technique (Chang, Col. 63, Lines 7-18). Java has RMI server and client to support seamless remote invocation on objects in different virtual machine by default (Java Remote Method Invocation, <http://sunsite.nsk.su/java-stuff/JDK/guide/rmi/spec/rmiTOC.doc.html>). Thus, the remote query objects 14-19 as server must used RMI model to implement the technique to have *a Remote Method Invocation server*.



***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q PHAM whose telephone number is 703-605-4242. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN E BREENE can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

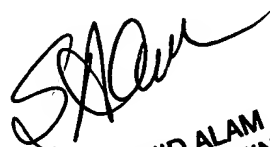
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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner Hung Pham  
March 22, 2004

  
SHAHID ALAM  
PRIMARY EXAMINER